

AGRICULTURAL RESEARCH SERVICE

FY 2007, FY 2008, AND FY 2009 ANNUAL PERFORMANCE PLANS

The Agricultural Research Service (ARS) was established on November 2, 1953, pursuant to authority vested in the Secretary of Agriculture by 5 U.S.C. 301 and Reorganization Plan No. 2 of 1953, and other authorities.

ARS is the principal in-house research agency of the U.S. Department of Agriculture (USDA). Congress first authorized federally supported agricultural research in the Organic Act of 1862, which established what is now USDA. That statute directed the Commissioner of Agriculture "... To acquire and preserve in his Department all information he can obtain by means of books and correspondence, and by practical and scientific experiments..." The scope of USDA's agricultural research programs has been expanded and extended more than 60 times since the Department was created.

ARS research is authorized by the Department of Agriculture Organic Act of 1862 (7 U.S.C. 2201 note), Agricultural Research Act of 1935 (7 U.S.C. 427), Research and Marketing Act of 1946 (P.L. 79-733), as amended (7 U.S.C. 427, 1621 note), Food and Agriculture Act of 1977 (P.L. 95-113), as amended (7 U.S.C. 1281 note), Food Security Act of 1985 (P.L. 99-198) (7 U.S.C. 3101 note), Food, Agriculture, Conservation, and Trade Act of 1990 (P.L. 101-624) (7 U.S.C. 1421 note), Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127), and Agricultural Research, Extension, and Education Reform Act of 1998 (P.L. 105-185). ARS derived most of its objectives from statutory language, specifically the "Purposes of Agricultural Research, Extension, and Education" set forth in Section 801 of FAIR.

The ARS mission is to conduct research to develop and transfer solutions to agricultural problems of high national priority and provide information access and dissemination to: ensure high-quality, safe food, and other agricultural products; assess the nutritional needs of Americans; sustain a competitive agricultural economy; enhance the natural resource base and the environment; and provide economic opportunities for rural citizens, communities, and society as a whole.

The Agency's research focuses on achieving the goals identified in the USDA and Research, Education, and Economics (REE) mission area Strategic Plans. The Government Performance and Results Act (GPRA) mandates each agency to establish general goals that will contribute to achieving beneficial societal outcomes that shape and drive the work of the Agency during the five years covered by the plan.

Verification, Validation and Program Evaluation: ARS conducts a series of review processes designed to ensure the relevance and quality of its research work and to maintain the highest possible standards for its scientists. This process involves customer input to help keep the research focused on the needs of the American food and agricultural system. Each of the approximately 1,000 research projects, which are organized into 22 National Programs, undergoes a thorough independent external prospective peer review conducted by the Office of Scientific Quality Review (OSQR). All ARS employees, including the scientific workforce, are subject to annual performance reviews. Senior scientists undergo a rigorous peer review (Research Position Evaluation System-RPES) on a 3- to 5-year cycle. These processes ensure the continuing high quality output of the ARS research addressing the needs of American agriculture.

ARS has also completed two program evaluations that are included in the **President's Management Agenda (PMA)**. The PMA is designed to strengthen the management of Federal programs and increase program accountability. In the FY 2006 budget cycle, ARS conducted a **Program Assessment Rating Tool (PART)** analysis on all the research conducted under

Strategic Plan Goal 1, Enhance Economic Opportunities for Agricultural Producers. This Goal includes research on new and improved high quality value added products and processes, livestock production, and crop production. In FY 2007 budget cycle, a PART analysis was conducted on Goal 3, Research on Protection and Safety of Agricultural Food Supply, covering research on Food Safety, Livestock Protection, and Crop Protection. The PART assessment seeks to measure four aspects of a program: program purpose and design, strategic planning, program management, and program results/accountability. The PART analysis for both Goals 1 and 3 received a “moderately effective” rating from OMB. ARS is conducting two additional PART analyses during the FY 2008 budget cycle covering Goal 4, Nutrition and Health, and Goal 5, Natural Resource Base and Environment.

Beginning in FY 2005, ARS’ National Program Leaders (NPLs) and Area Directors reviewed more than 1,000 research projects by applying the **Research and Development (R&D) Investment Criteria of relevancy, performance, and quality**. The information gained from this review helped the Agency to identify low performing and/or low priority research. This information was used in shaping the FY 2007 budget; it will also be used to make future program management decisions. The R&D investment criteria were applied as follows:

For **relevancy**, the NPLs assessed whether ARS’ research is consistent with the Agency’s mission and relevant to the needs of American agriculture, as identified by the Administration and ARS’ customers and stakeholders.

For **performance**, the NPLs reviewed the annual project reports submitted by each research unit. Beginning with FY 2004, these reports provided information on how well each research project did in achieving the milestones in its Project Plan.

For **quality**, the Area Directors relied on data from the ARS OSQR reviews of each research project at the beginning of its 5-year program cycle. OSQR conducts rigorous reviews of ARS’ research projects by independent external peer panels to ensure their quality. In addition, the Area Directors used information from the RPES reviews of individual scientists in making this assessment. RPES conducts rigorous peer reviews of ARS’ scientists on a regular schedule (i.e., every three, four, or five years). The Area Directors also assessed the capacity (i.e., facilities, human and fiscal resources, equipment, etc.) of each project to meet its research objectives, an important consideration for intramural programs.

The National Programs focus the work of the Agency on achieving the goals defined in the ARS Strategic Plan 2003-2007. The research priorities for each National Program are established with extensive input from customers, stakeholders, and partners, which is received, in part, at a series of National Program Workshops. A detailed Action Plan developed for each National Program is available on the ARS home page, www.ars.usda.gov; open “Research” and select the National Program of interest. The GPRA Annual Performance Plans, the GPRA Annual Performance Reports, and the National Program Annual Reports which serve to keep the work of the Agency focused on achieving the goals established in the ARS Strategic Plan are also available on this website. The aggregate effect of these processes is a strengthened research program and an accountability system that measures more effectively the progress made towards achieving established goals and outcomes.

Key External Factors that Affect the Ability of ARS to Achieve its Goals and Objectives: The future of American agriculture depends on its ability to respond to critical external factors. Effective planning within ARS will take these factors into consideration when establishing and executing the Agency’s research programs.

Globalization: The globalization of all aspects of the food and fiber system is having a major impact on American agriculture. Profound changes are seen worldwide from competitive markets around the world, from diseases not limited to national boundaries, to population growth and evolving diets. These changes have led to a dramatically new trade environment, threats of

exotic diseases and pests to domestic production, and international controversies over the use of biotechnology. To remain competitive, the food and agriculture sector needs to respond to these developments.

Information Access and Communication: The explosion of information technology, the worldwide use of the Internet, and the major advancements of cyberspace communications are changing the way private industry, government, and individuals conduct daily business. Vast amounts of information are available in “real time,” more people from around the world will be able to retrieve the information, and advanced computer software will make the information more useful and meaningful. Advancements in communication technology offer benefits and opportunities for everyone involved in the American food and agriculture sector.

Workforce: A very important employment issue is the need to recruit and retain a highly skilled and technically well trained Federal workforce. The relatively low U.S. unemployment rate makes recruitment highly competitive. This competitive environment is expected to require more employer emphasis on recruitment, retention, student employment, upward mobility, and training/retraining programs. The public sector will need to recruit a diversity of people and to maintain a highly qualified and technically competent workforce. Expanding job opportunities for women and minorities in science and engineering will help to tap the Nation’s human potential.

Technology: Advances in technology--such as bioengineering, precision agriculture, remote sensing, and decision modeling--enable agricultural production to enhance nutrition, protect the environment, and continue to make the food supply safe. Biotechnology offers great promise for increasing production efficiency, improving food quality, and enhancing nutritional value. However, concerns about genetically modified organisms (GMOs) have had a marked impact on international exports of affected commodities, and prompted questions about the potential benefits and risks. Precision agriculture, remote sensing, and decision modeling will both increase production efficiency and mitigate adverse environmental impacts of agriculture. Public concern about food safety has led to new rapid detection technologies that, when fully implemented, will make the food supply safer.

Changing Demographics: Growing global populations, demographic changes, and economic growth will substantially increase the demand for agricultural products, thus creating new markets for U.S. products. At the same time, however, increased agricultural competitiveness from other countries will force U.S. agriculture to become more efficient. Because arable agricultural land is limited, the growing demands will increase pressure to maximize yields, protect marginal areas from unsustainable development, and minimize the harmful effects of agriculture on the environment and the natural resource base.

Changing Structure of Agriculture: The structure of the food and fiber system--from farm to market--changed dramatically in the last decades of the 20th century, and is likely to continue. Change can be seen all across the food and agriculture sectors. An increasing share of U.S. food and fiber is being produced on fewer, larger, and more specialized farms. Production and marketing are more vertically and horizontally integrated. Concentration is greater causing sharp declines in the number of buyers and sellers of a product. Consumer preferences, new technologies, and global markets bring about continuing changes that affect farmers, processors, marketers, and consumers.

Congressional Support: The ability of ARS to respond to the diverse needs of producers and consumers is determined by the level of Congressional support. As a consequence of inflation and higher operating costs associated with advances in research equipment and technology, the ARS scientific workforce, which reached a maximum of about 3,400 scientists in 1970, decreased by almost 40 percent during the ensuing 25 years. More recently, appropriations have allowed the Agency to expand its research program and hire additional scientists to bring the current number of scientists to almost 2,200.

Drug-Free Workplace: ARS will continue to use the applicable contract clauses and regulations to ensure compliance with drug-free workplace debarment and suspension requirements in all of its acquisition programs.

General Comments: In January 1998, ARS requested a waiver from the Office of Management and Budget's (OMB) requirement "to describe specific and tangible products, steps, intermediate goals, and/or accomplishments that will demonstrate that the Agency has successfully met each Performance Measure/Goal in a given fiscal year." With OMB's concurrence, ARS is able to use narrative descriptions of intermediate outcomes and indicators of progress instead of numerical metrics as specified in GPRA. The research and technology transfer activities listed in this report are not all inclusive of the Agency's work. The reported accomplishments reflect, but do not adequately capture, the broad range of basic applied and developmental research that underpins the Agency's work.

Only Federal employees were involved in the preparation of this report.

MANAGEMENT INITIATIVE 2: ENSURE PROVISION AND PERMANENT ACCESS OF QUALITY AGRICULTURAL INFORMATION FOR USDA, THE NATION, AND THE GLOBAL AGRICULTURAL COMMUNITY VIA THE NATIONAL AGRICULTURAL LIBRARY.

GOAL 6 MANAGEMENT INITIATIVES	FY 2006	FY 2006	FY 2008
National Agricultural Library	\$21,813	\$24,970	\$Not Available
Total	\$21,813	\$24,970	\$Not Available

NOTE: Dollars in Thousands.

Means and Strategies: To successfully accomplish the activities under this initiative, ARS will need the resources reflected in the table above.

Verification and Validation: NAL collects information about customer satisfaction with its Web-based services by using a Foresee Results American Customer Satisfaction Index (ACSI) survey approved by OMB for Federal Web sites. Data are also gathered on a continuous basis about the volume of direct customer service transactions, and about customer information needs via OMB-approved surveys.

Performance Measure MI 2.1: The services and collections of the National Agricultural Library continue to meet the needs of its customers.

Indicators:

During FY 2006, NAL will

continue to expand and improve services based on customer usage and satisfaction data.

ACCOMPLISHMENTS:

Customer Needs Assessment. A large-scale Web-based survey approved by OMB was executed in 2006 and received more than 6,000 responses. Valuable data about NAL's current customer base, non-customers, and a high level of satisfaction with current services were recorded and many suggestions for new services were received.

IMPACT/OUTCOME:

The data from the survey, along with results from the ACSI (American Customer Satisfaction Index) survey that is integrated with the NAL Web site, will enable NAL management to align NAL operations to meet customer needs.

ACCOMPLISHMENTS:

Increased volume of direct customer services. In FY 2006 the total volume of NAL direct customer service transactions increased to more than 93 million transactions, about 9 per cent.

IMPACT/OUTCOME:

NAL continued to increase services to its broad and large customer base, with an emphasis on digital information products and services.

ACCOMPLISHMENTS:

E-metrics. NAL staff improved a management statistics database that enables analysis of cost and usage statistics pertaining to electronic reference sources, full text and non-full text journals, Web sites and catalogs, books, and digitized materials in support of the Association of Research Libraries' E-metrics project. The database was made available to other ARL member libraries.

IMPACT/OUTCOME:

By developing this data resource, NAL simplified data collection and provided a mechanism for accessing and analyzing key statistical measures on demand that could also be useful for other major research libraries. With this new resource, NAL management is equipped to improve services and identify and act upon trends.

ACCOMPLISHMENTS:

Web Migration. In 2006, NAL completed the Web migration project for the NAL Web site – www.nal.usda.gov - in order to conform to new USDA style guidelines and improve services delivered via the Web site. The redesign and migration of the NAL Web site www.nal.usda.gov following new USDA style guidelines was a major priority for the Library. An organizational structure to provide leadership co-ordination and facilitate communications was implemented, comprised of an Oversight Committee and six teams: External Relations and Requirements; Existing Web Pages; Landing and Sub-landing Pages; IT Assistance; NAL-Created Web Content Archiving; and the Web Site Taxonomy and Metadata. NAL staff met all USDA-mandated migration deadlines by developing software tools, content templates, and style guidelines needed to transition NAL's 64,000 page Web presence. The new NAL Web presence includes functionality that reduces the number of click-throughs needed to find information and also supports searching of NAL databases (such as AGRICOLA) as well as Web pages, from a single search box (functionality initially developed for www.science.gov). Due to new technology that reduces the number of click-throughs needed to find information on the NAL Web site, the rate of increase in NAL Web hits slowed in FY 2006 and this pattern may continue over the next few years. NAL developed new and formalized existing Library-wide practices for linking to public facing Web sites. These practices guide agency functions, assure adherence to appropriate quality standards, and comply with maintenance standards required by OMB and USDA.

IMPACT/OUTCOME:

Customers now can find NAL's Web-based information more easily and quickly. The redesigned Web site improves services for NAL customers with organization of the site by subject and enhanced search functionality that permits searching of all the databases and Web pages of the site from a single search box. The redesigned [Web site](#) serves as a gateway connecting users swiftly with the services of NAL and with the billions of pages of agricultural information within NAL collections and information resources.

ACCOMPLISHMENTS:

DigiTop and DigiCALs. During FY 2006, NAL continued the refinement and expansion of digital content subscription offerings to USDA employees throughout the world through the USDA Digital Desktop Library service (DigiTop). Usage of DigiTop resources continues to increase at a rate of about 13% annually. A total of 678,000 article downloads by USDA employees in FY 2006 indicates the success of this enhanced service. A new metasearching tool called Central Search was deployed to enhance access and retrieval of DigiTop resources. Numerous in-person and virtual training sessions were conducted at USDA locations throughout the country. During FY 2006, NAL added new scientific journal articles and retrospective backfiles for over 2,660 titles, significantly increasing and expanding the value of this popular service to USDA. NAL continues to pursue sustained funding from USDA Agencies to support future development and availability of USDA access to DigiTop beyond FY 2006. Agencies contributed a total of \$2.5 million to NAL for DigiTop. During FY 2006, the Library's DigiTop-CALS service integrated current awareness alert services through Dialog and EBSCO, and expanded the USDA user base for the current awareness charge-back services. Further, the USDA DigiTop service integrated full-text (context sensitive) linking to select DigiTop subscribed databases using software from Serial Solutions. NAL implemented federated cross-searching solutions to increase the effectiveness of DigiTop user experience. In addition, the DigiTop Web site was redesigned for increased ease-of-use.

IMPACT/OUTCOME:

More online content was made available to USDA employees. Integration of CALS into DigiTop increases efficiency of USDA customer access to digital services. Improved systems

infrastructure increases reliability and saves customer time, by providing seamless delivery of documents from one integrated source rather than the previous two distinct systems.

ACCOMPLISHMENTS:

Web-based document delivery. The Library maintained a two-day turnaround time for all document delivery and interlibrary loan requests. The percentage of document delivery requests delivered electronically continues to rise. In FY 2006, 90% of all journal articles supplied by NAL were delivered electronically, an increase of 3% over FY 2005. While NAL will continue to use an array of methods, as requested by our customers, to deliver documents to them, NAL now receives document requests only via the Web. NAL streamlined document delivery workflow, increased management control over the document fulfillment process, and saved time for customers requesting documents.

IMPACT/OUTCOME:

NAL maintained its excellent level of document delivery service and saved time for customers requesting documents.

ACCOMPLISHMENTS:

AGRICOLA Re-scope. AGRICOLA (agricola.nal.usda.gov) is the online catalog and index to the NAL collections as well as a primary free of charge public source for world-wide access to agricultural information. The value and relevance of AGRICOLA eroded seriously over the last two decades because NAL has been unable to fund AGRICOLA operational production at a level sufficient for maintaining a comprehensive index of agricultural literature. To address this challenge, NAL has completed a process of redefining the scope of the AGRICOLA indexing operation to reflect the Library's current capacity and capabilities. Rather than pursue a goal of comprehensiveness, AGRICOLA will focus on indexing information that directly supports the operations of NAL and serves customer needs as much as possible. The mix of items will include USDA publication, articles authored by USDA scientists, core agricultural serial titles, as well as digital and printed content material not indexed by commercial indexing services. The re-scoped AGRICOLA index will continue to serve as the search tool to access NAL's collections and as the search portal to AgSpace, the National Agricultural Library's digital repository.

IMPACT/OUTCOME:

NAL identified a new scope for AGRICOLA which clarified what customers can expect to find in the database.

ACCOMPLISHMENTS:

Purchasing Books and Journals. The collections of the National Agricultural Library constitute a national treasure and inventory of agricultural information to support USDA and American citizens. Unfortunately, essentially static funding over the past two decades has eroded seriously the Library's budget for purchasing new items for the collections. During this time, the cost of acquiring serials and monographs has increased at rates that exceed core inflation rates and has reduced NAL's materials budget purchasing power by an estimated \$1.6 million. In FY 2006 NAL set a minimum funding level of \$1.8 million for materials purchases, with a goal of ending the erosion of the collections. To fund the minimum level, NAL abolished positions and made other budget reductions. This level is the absolute minimum for NAL's collection purchases, below which there can be no pretense of continuing to build a national collection of agricultural information.

IMPACT/OUTCOME:

NAL established a minimum funding level for purchasing books and journals, below which there can be no pretense of continuing to build a national collection of agricultural information.

ACCOMPLISHMENTS:

Cataloging-in-Publication. The NAL cataloging branch is recognized as the premier national authority for description of agricultural books and periodicals. The metadata NAL catalogers

create, the fundamental building block that permits the identification and retrieval of agricultural information, are relied upon by libraries across the nation and around the world. In FY 2006, NAL began a partnership with the Library of Congress through which NAL helps catalog new agricultural books prior to their publication. Working from electronic galleys of the book, NAL prepares catalog metadata for inclusion in the printed books. In return, NAL receives a copy of the published work at no charge. When in full operation, this program will permit NAL to acquire 1,000-1,500 books per year with a value of \$50,000 to \$75,000.

IMPACT/OUTCOME:

NAL and the Library of Congress have minimized duplication of effort and NAL will acquire books at no charge to a value of \$50-75,000.

ACCOMPLISHMENTS:

Special Collections. NAL hosted an exhibition in 2006 of botanical illustration art, Inspiration and Translation: Botanical and Horticultural Lithographs of Joseph Prestele and Sons, in conjunction with the Hunt Institute for Botanical Documentation and the US National Arboretum. In addition, a catalog of the exhibition was published. Three new NAL products, based on the nursery and seed trade catalog collection and focusing on cherry blossoms, were produced in collaboration with Galison publishers. Sixteen products based on the Prestele exhibition were developed for sale. A portion of the proceeds funds the conservation treatment of materials within the collection. 2006 conservation activities included creating protective boxes for 700 items too fragile to re-bind, microfilming of 50 requested titles and photo-duplication of ten items which are no longer in a condition to circulate. Also conserved were the papers, watercolors, and lithographs of William Henry Prestele, more than 262 original sketches, watercolors, lithographs, and other works of art, and the sketchbook of Charles Valentine Riley. A collection survey of the USDA Collection and selected rare books was completed by a contract conservator. A collection of nursery catalogs was donated by a retired University of Maryland horticulture professor. The collection includes historic catalogs and two very rare catalogs from Japan which are valued over \$5,000.00 each. NAL staff presented two review sessions of last year's "Reacting to a Water Event" program in preparation for the 2006 hurricane and thunder storm season. NAL is installing the remaining shelving for the Abraham Lincoln building special collections fifth floor and moving its rare and valuable items to this floor while rearranging all collections to accommodate future growth.

IMPACT/OUTCOME:

NAL continued to highlight and preserve its rare and valuable materials.

ACCOMPLISHMENTS:

Information Product and Services Development. Examples of products and services developed in 2006 include: an Agricultural History research guide; soybean rust disease Web pages; search strategies for the IBIDS dietary supplements database; an "Organic Roots" database of USDA documents on organic agriculture published before 1942 (before synthetic chemicals became widely used); dynamic bibliographies on CEAP (USDA Conservation Effects Assessment Project) topics and comprehensive bibliographies on wetlands and grazing lands; Boolean CUBE (Boolean Canned URL-Based Experience), which allows complex searches of AGRICOLA and creates permanent URLs that re-run searches with just a mouse click; biofuels Weblog and new content on funding sources available for construction of ethanol and biodiesel plants; and extensive database searches to support a utility locating technology project. The "DigiKnow?" Information Makeover Series was launched. This series of presentations at the USDA South Building NAL Reference Center addresses topics of interest to the USDA community while featuring NAL resources and services. "DigiKnow?" 2006 presentations covered such topics as obesity prevention, benefits of whole grains, invasive garden species, and community supported agriculture, key databases in DigiTop, document delivery, and highlights from the library's Special Collections.

IMPACT/OUTCOME:

NAL continued to develop and deliver information products and services targeted to the information needs of its customers.

ACCOMPLISHMENTS:

Information Center Accomplishments. **Alternative Farming Systems Information Center (AFSIC).** published a third edition of the popular digital publication: "*Organic Agricultural Products: Marketing and Trade Resources*," a comprehensive guide to more than 1,000 online information resources about organic markets, marketing, and trade, available in pdf and html on a free CD or at the AFSIC Web site: <http://www.nal.usda.gov/afsic> . **Animal Welfare Information Center (AWIC)** staff conducted 2 on-site and 8 external workshops to train people how to search for information about alternatives to the use of animals in research and exhibited at 10 professional meetings. AWIC produced several new Web-based publications, and 7 CD information products on animal diseases, farm and lab animal care and welfare, searching for alternatives to animal use, care of pandas and other key topics for those species regulated under the Animal Welfare Act. **Food and Nutrition Information Center (FNIC)** staff developed a database of recipes (<http://foodstamp.nal.usda.gov/recipes.php>) for nutrition educators working with the Food Stamp Program eligible population. Recipe costs are based on information provided by the USDA Economic Research Service (ERS) which purchased data from AC Nielson. The majority of recipes in the database were submitted by nutrition educators in the Food Stamp Program. **Nutrition.gov**, supported by funding from USDA and HHS agencies, received over 3.3 million hits in FY 2006. More web sites are linking to Nutrition.gov with the addition of metadata to enhance search results, resulting in improved visibility. Nutrition.gov received a record high 347,000 hits in February 2006, and a Google search for "nutrition" now shows Nutrition.gov with #1 ranking. **Food Safety Information Center (FSIC)** staff collaborated with the University of Mississippi's National Institute of Food Service Management to develop an online application for generating HACCP forms specific to food service employee needs. As an example of **Rural Information Center (RIC)** services, RIC staff provided information about funding sources to a small medical transportation company which led to the receipt of a grant from one of the foundations. **Technology Transfer Information Center (TTIC)** MTACRADA partner, Artifex Equipment Inc., reported sales of its super slurper book drying product, Zorbix, to a number of major libraries worldwide as well as several private conservators. The **WIC** Learning Online Module was approved for 3.9 contact hours for nurses by the Maryland Nurses Association. The pilot version of **IBIDS** Clinical contains bibliographic records describing studies and organizational statements pertaining to three dietary supplements: Chromium, Ginkgo, and Vitamin E.

IMPACT/OUTCOME:

NAL continued to develop and deliver information products and services targeted to the information needs of its customers.

ACCOMPLISHMENTS:

NAL Improves Facilities. A major factor in the preservation of library collections and the successful operation of collection-based library programs and services is the condition of their physical environment. In FY2006 NAL continued to make progress on projects to improve its Abraham Lincoln building in Beltsville, Maryland. Due to safety concerns, repairs to the building's brick façade, which began in FY 2005, were NAL's highest priority modernization project. Available funding supported repairs to three of four sides of the building which were completed in FY 2006. As part of a USDA-funded security upgrade, a vestibule was installed at the building's main entrance. A project to replace windows on the building's 14th floor was completed in October 2006, to stop leaks around the windows and alleviate problems with moisture building up and dripping down to the 13th floor where there are stacks containing rare and special collections.

IMPACT/OUTCOME:

The risk of bricks falling from the Abraham Lincoln onto people has been reduced. Less moisture and water will come into the Abraham Lincoln building and the risk of water and

moisture damage to the NAL collections has been reduced.

ACCOMPLISHMENTS:

Interagency Web Portal Partnerships. NAL will continue its leadership and participation in Nutrition.gov (www.nutrition.gov), Science.gov (www.science.gov), and Invasivespeciesinfo.gov (www.invasivespeciesinfo.gov) in FY2007.

IMPACT/OUTCOME:

These partnerships with other agencies and departments are critical to the fulfillment of NAL's mandate to serve the nation. They prevent duplication of effort among government agencies, unify and simplify the delivery of critical information to citizens, and leverage NAL work by creating new audiences for NAL-created digital content.

ACCOMPLISHMENTS:

ARS Fee-for-Service Document Delivery Arrangement. In FY2005 NAL developed a plan to charge ARS customers directly for document delivery services received from NAL on a fee-for-service basis. Beginning in FY2006 this plan was implemented, using CRIS Project Numbers as chargeback identifiers.

IMPACT/OUTCOME:

Since FY2003, ARS and other USDA agencies have used NAL document delivery services on a partial cost-recovery basis. Beginning October 1, 2005 a chargeback plan was implemented whereby USDA headquarters agencies pay about 40 percent of the cost of providing document delivery services from NAL. Fees from document delivery service charges, agency contributions to DigiTop/DigiCALS and funding for other services to USDA agencies supplement NAL's appropriated funding and permit the continuation and improvement of key NAL services to USDA.

ACCOMPLISHMENTS:

Thesaurus. In January, NAL published an updated 2006 version of the National Agricultural Library Thesaurus (NALT) which is used for indexing journal articles in AGRICOLA. AGRICOLA bibliographic records were updated with the new terminology.

IMPACT/OUTCOME:

Updating terminology to align the National Agricultural Library Thesaurus with emerging agricultural trends and innovations facilitates search and discovery of relevant information in AGRICOLA and other agricultural databases and indices. The thesaurus provides the intellectual framework necessary to organize agricultural information for consistent retrieval.

ACCOMPLISHMENTS:

Thesaurus mirror Web site. The College of Agriculture and Natural Resources (CANR) at Michigan State University continued to operate a duplicate (mirror) Web site for the National Agricultural Library Thesaurus (NALT).

IMPACT/OUTCOME:

A duplicate (mirror) Web site ensures the availability of the thesaurus Web pages and search functionality to customers in the case of unforeseen circumstances at either location and distributes system load among and between the two IT systems so that performance and reliability are optimal for customers.

During FY 2007, NAL will

continue to expand and improve services based on customer usage and satisfaction data.

During FY 2008, NAL will

continue to expand and improve services based on customer usage and satisfaction data.

During FY 2009, NAL will

continue to expand and improve services based on customer usage and satisfaction data.

Performance Measure MI 2.2: The National Agricultural Library and partners implement the National Digital Library for Agriculture.

Indicators:

During FY 2006, NAL will

continue to develop partnerships and content for the NDLA.

ACCOMPLISHMENTS:

National Digital Library for Agriculture (NDLA) Design Concept Web Site. In 2005 the Library began formal consultations with customers, stakeholders, and potential partners about developing the National Digital Library for Agricultural (NDLA). In 2006 the Library began development of a Web site – <http://www.nal.usda.gov/ndla> - which was launched in early 2007, to display and test a design concept for the NDLA Web site.

IMPACT/OUTCOME:

The Library demonstrated possibilities for a Web site presenting the National Digital Library for Agriculture.

ACCOMPLISHMENTS:

AgNIC. Between October 2005 and spring 2007 the Agriculture Network Information Center (AgNIC) Alliance - www.agnic.org – will have welcomed 8 new member institutions, for a total of 63 members. Four digital content-building projects were completed and four new projects were begun, funded by the AgNIC specific cooperative agreements program, which has funded 23 projects since its inception in FY 2004. There were about 170 million hits to the NAL servers and AgNIC partner Web sites in FY 2006. In 2007, the annual meeting of the AgNIC Alliance will for the first time be hosted by a member institution, Mississippi State University.

IMPACT/OUTCOME:

More important agriculture information has become available on the Web as a result of collaborations among NAL and AgNIC partners.

ACCOMPLISHMENTS:

PROCINORTE. PROCINORTE, sponsored by the Interamerican Institute for Cooperation on Agriculture (IICA), is a formal mechanism that facilitates cooperative actions of common interest to the U.S, Canada, and Mexico. NAL staff led the PROCINORTE task force on Agricultural Library and Information Services.

IMPACT/OUTCOME:

The PROCINORTE task force continues to develop collaborate activities that support the region's agricultural sector by improving access to key information.

ACCOMPLISHMENTS:

Identifying new full-text digital content. NAL Technical Services Division staff monitor USDA and GPO websites to identify new titles that should be added to NAL's collection, including those available in electronic format. In addition, numerous titles formerly received in print as gifts or on exchange are now available only via the Web. URL's for these types of publications are

continually added to AGRICOLA, ensuring that access is continued and increasing the titles for which full-text is available via AGRICOLA.

IMPACTS/OUTCOMES:

Materials that are shifting to e-only format are routinely identified, captured and updated in the AGRICOLA catalog ensuring continued access to content and increasing the proportion of materials that are available electronically. This will transition more of the NAL collection, as access becomes available, to electronic format and ultimately serve as the backbone for the National Digital Library for Agriculture.

ACCOMPLISHMENTS:

AgSpace, sample digital repository, and digitization projects. The publishing industry is in the midst of a fundamental shift in modality from printed paper publications to digital publication. This paradigm shift is affecting scientific communications and the nature of performing research. At the core of its mission, NAL must acquire and maintain the scholarly and scientific publications and content required to support agriculture. To fulfill NAL's mandate, the Library now must develop the ability to store and preserve in perpetuity digital publications, for long-term access. In FY 2006 the Library completed a pilot study and began the implementation of AgSpace, the National Agricultural Library digital repository. An example of such a repository - <http://naldr.nal.usda.gov> - was launched on April 12, providing full-text access to publications either digitized by NAL or through NAL's partnerships with other institutions. Over 2,214 volumes (172,175 pages) have been added to the sample repository thus far, with all documents linked to AGRICOLA. The following organizations have provided funding for new projects to digitize their publications: The Bean Improvement Cooperative, USDA Agricultural Marketing Service and the World's Poultry Science Association. NAL will maintain at least one print copy and provide digital access in perpetuity.

IMPACT/OUTCOME:

Important publications have been digitized to preserve and provide access to them in perpetuity. NAL's capabilities to manage a new workflow involving digitization and digital preservation have been demonstrated by a sample digital repository.

During FY 2007, NAL will

continue to develop partnerships and content for the NDLA.

During FY 2008, NAL will

continue to develop partnerships and content for the NDLA.

During FY 2009, NAL will

Continue to develop partnerships and content for the NDLA.